



RESEARCH NOTE .....

## *Leucas aspera* treatment for ecto-parasitism in resistant cattle – Trial report

U. UMADEVI AND T. UMAKANTHAN

**ABSTRACT.....** In a span of 1 year, in various veterinary institutions, 42 cattle were presented for external parasitic infestation with wide range of symptoms from discomfort to diseases transmitted by the parasites. On clinical and laboratory examination, various types of fleas and ticks identified in common. Control group, trail group A and B were formed with 2, 10 and 30 animals, respectively. Group A given regular allopathic treatment with Ivermectin or Flumethrin. Group B treated externally using the leaves of *Leucas aspera* at once. In the next 48 hours, recovery rate recorded was negligible in control group, 80 per cent and 93 per cent in group A and B, respectively. After a month clinical reinfestation noticed in group A animals, but not in group B.

**KEY WORDS.....** Cattle, External parasites, *L.aspera*

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Among the external parasites infesting cattle, ticks and fleas contributes the major. Though there are allopathic products known against them, now a days rarely a few is effective in cattle but ultimately not ideal to prevent the reinfestation. In this paper is propounded a herbal remedy for external parasitism in cattle overcoming the above.

One year study comprised a total of 42 cattle aged 10 months to 4 years, different in breed, sex and nutritional condition. Clinical examination revealed symptoms, such as restlessness, emaciation, multiple pin-point swellings on the skin, rubbing face and body against hard objects, licking over infested areas, flea dirt in skin, eczema, alopecia predominantly on the dorsum, secondary infection and dermatitis, corneal ulcer and

opacity resulting in blindness and clinical signs of diseases such as anaplasmosis and babesiosis. Random blood sample examination showed normal to anaemia. The blood parasites *Anaplasma marginale*, *Babesia bigemina* and rarely *Anaplasma central*, in mixed or single identified. Skin scrapings revealed *Haemaphysalis longicornis*, *Rhipicephalus* sp. ticks and the cat flea *Ctenocephalides felis*. Visible flea strike evident in restrained cattle.

Of the forty two, 2 cattle kept as control without any treatment, 10 in group A received allopathic treatment 30 in group B treated with *L.aspera*.

Group A were applied 1 – 1.3 per cent Flumethrin (Bayticol pour-on tickicide – Bayer animal health) evenly along the midline of dorsum from front of shoulder to

tail. Group B were applied the finely ground paste of leaves of *Leucas aspera* all over the body.

Upon clinical and laboratory examination after 48 hours, control group remained the same, while 8 and 28 cattle of Group A and B, respectively were found free from most of the clinical signs with apparently reduced ectoparasite population. The recovery was 80 per cent with regular allopathic medicine and 93 per cent with *L.aspera*. While after a month, clinical reinfestation noticed in the former, but not in the latter. Thus the use of *L.aspera* effectively against ectoparasitism recorded.

Though flies rank first in disturbing the livestock, ticks and fleas adds up by causing systemic illnesses. They adversely affect the economic performance of cattle through blood loss, discomfort, hide damage, and secondary infections.

Short term remediation of ectoparasites requires chemical control on the animal while leaving residual insecticide on the hair coat to prevent reinfestation for several days. Usual methods include externally applying and spraying of drugs.

But presently insecticide/ acaricide resistance in ticks and fleas infesting dogs and cats has been proved (Coles and Dryden, 2014). Resistance to antiparasitic drugs is all too common in parasites of veterinary interest (Sangster, 2001). Unpublished data showed upto 98 per cent of resistance in cattle.

*L. aspera* was selected as anti-ectoparasiticide

owing to used as insecticide, and in scabies (Nadkarni, 1996).

Ravindran *et al.* (2011) reported acaricidal activity of crude ethanolic extract of aerial parts of *L.aspera* against *R. (B.) annulatus* (Singh, 2014). Leaf and Twig juice is insecticide and anthelmintic (Das, 2012). An anthelmintic, used for psoriasis and chronic skin eruptions (Bendre, 2009). Juice of leaves given in skin eruption (Trivedi, 2009).

The juice of leaves is used externally for skin eruptions and swellings (Khare, 2004).

### Summary :

*Lucas aspera* leaves effectively used as ectoparasiticide in cattle, preventing the reinfestation.

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